

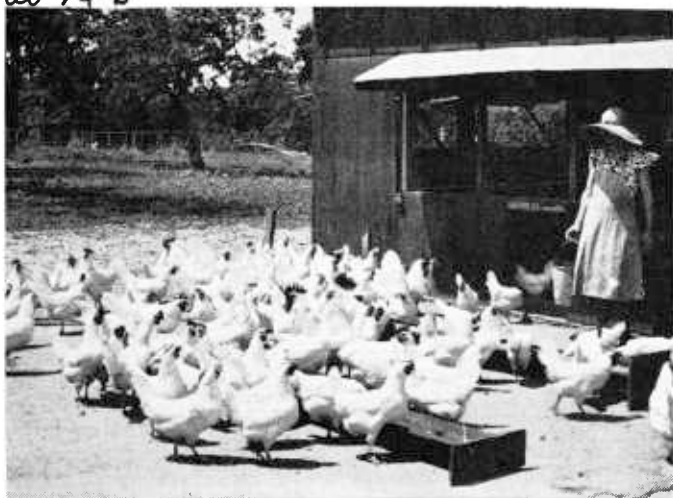
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BUSINESS RECORDS for POULTRY KEEPERS



U. S. DEPARTMENT OF AGRICULTURE

BOOKKEEPING is unpopular among those who can carry all their available funds in their pockets. Nor is it popular with those whose business is so simple that they can at all times figure out satisfactory answers to any questions of fact that come up. Such persons feel helpless about their accounting or even hopeless about getting ahead. Many farmers have learned the usefulness of farm records through observing the results obtained by their wives from performance records of the farm flock.

This bulletin does not tell anyone how to make money from his poultry. But it does present forms that experienced poultrymen have used in controlling their management practices. In visiting poultrymen the authors collected a great variety of forms, which the 20 types in this bulletin represent.

In applying the principles here presented, the poultryman must make his own selections from among the forms, changing them to suit his interest in the questions to be settled. Any of the special record books he has used may still be used, perhaps without change. When the right information has been used in improving his practices, a farmer has reached his bookkeeping objective.

Simple needs mean simple forms. Large business means more figures as well as larger figures than come up in a small business. The real complications come when a farmer has more than one breed of poultry, sells eggs for hatching, and raises his replacements. The system described here can be extended to serve such complex business. The hatchery business or the production of broilers can use special industrial accounting forms and may need the services of trained bookkeepers.

BUSINESS RECORDS FOR POULTRY KEEPERS

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WHAT RECORDS TO KEEP

When a reader asks for information which this bulletin helps to supply he has taken his first big step in bookkeeping—he has felt a need for something that he knows others have and he himself can acquire. He has some knowledge of poultry, probably some experience, and some property to manage. He knows that successful poultrymen keep records or pay for having them kept, and he thinks that their records have had something to do with their success. How much a reader can do for himself by keeping records is for him to discover.

Bookkeeping is a manager's device for assembling the facts he needs for deciding what he should do next. He should continue the practices proved by experience to be desirable as long as they are satisfactory to him. He can start his records at any time and amplify his records as he thinks best.

This bulletin makes no attempt to set up choices between breeds, locations, capital investment, labor requirements, markets, prices, or income from the business. Those are managerial questions which the records help to decide. No figure shown in any of the forms herein is more than an illustration of what was good for one flock at one time. It may not be good for any other farm at any other time.

INVENTORY

The poultryman's inventory is an itemized list of property on a given date, with the values of each assigned. Form 1 is a condensed inventory sufficient for comparisons of annual growth over a period of years. The counts and descriptions are the important features of the inventory. Large differences in number, quality, or conditions need to be shown by listing the lots separately. For example, all

the stock on the place on the inventory day should be counted and appraised; the three classes shown are usually enough. Birds ready to be sold, even if to be sold in the next week, may well be listed separately from those to be kept through the winter, to avoid confusion later. If more than one breed is kept the counts for each breed are worth separate listing, as are specially selected pens of breeding stock from which hatching eggs are expected.

FORM 1.—*Inventory of the poultry enterprise*¹

Item	Beginning of year (October 1)		End of year (Sep- tember 30)		Change in value	
	Number	Value	Number	Value	Increase	Decrease
		<i>Dollars</i>		<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Total capital ²		11, 173		12, 205	1, 250	218
Real estate.....		6, 600		6, 475		125
Land, acres.....	20	4, 000	20	4, 000		
Laying house.....	2	2, 500	2	2, 375		125
Incubator house.....						
Feed building.....						
Other buildings.....						
Other improvements.....		100		100		
Stock.....	1, 500	4, 000	1, 800	4, 800	800	
Pullets.....	1, 000	3, 000	1, 200	3, 600	600	
Hens.....	500	1, 000	600	1, 200	200	
Males.....						
Feed on hand, pounds.....	2, 000	60	1, 000	30		30
Straw and litter, pounds.....	6, 000	30	4, 000	20		10
Equipment.....		355		771		34
Incubators.....			1	450	450	
Brooders.....	8	240	8	216		24
Watering equipment.....		20		20		
Cleaning equipment.....		40		40		
Egg cases and fillers.....		15		10		5
Shipping coops.....		15		15		
Miscellaneous.....		25		20		5
Eggs on hand, dozen.....	130	78	100	59		19
Miscellaneous supplies.....		50		50		

¹ The figures in this form as well as in the forms that follow, are merely for the purpose of illustrating how the items are put down in the record.

² Sum of items shown. The cash balance and the debts of the enterprise must also be considered as significant parts of the inventory, but for ordinary purposes especially on diversified farms, it is not customary to add them to enterprise statements.

Inventory counts and values are intimately connected with the cash account as will appear more clearly later, so that in general the classifications of inventory and cash account should be the same. The first inventory date is the date for beginning all the other records. Commercial egg producers may begin their accounting year with the month the pullets are housed for the winter, say September 1.

Every one of the forms shown may need to be altered to fit the situation in which it is to serve. Each, or one much like it, was being used by some poultryman.

Only strictly poultry questions are discussed here. On general farms, certain costs should be set with proper regard to their relation

to the costs of the other enterprises that are also part of the farm business.

These records are suitable for a proprietor who does the book-keeping himself or is at hand to give close supervision to the whole enterprise. When a business is large enough to hire a full-time record keeper, as custom hatcheries do, and some broiler plants, and some breeding establishments, the modifications of the forms may seem more extensive than they really are, except for volume of work. Even so, the proprietor must scan the results regularly to assure the control he seeks.

The following typical records are discussed in this bulletin:

Records all poultry raisers should keep:

- Inventory, Form 1.
- Receipts and expenses, Forms 2, 3, 4.
- Egg production, Form 5.

These records, plus the estimated value of home-produced feeds and the value of meat and eggs used by the household, give the financial results of the poultry business for the year. The distribution of the egg lay is also shown. These records are necessary for the proper interpretation of any other records that may be kept.

Additional records for those who wish detailed information on specific phases of the poultry enterprise:

- Feed, Form 6.
- Labor, laying flock, Form 8.
- Labor, growing flocks, Form 9.
- Eggs sales, Form 10.
- Fowl sales, Form 11.
- Chicken sales, Form 12.
- Household use, Form 13.
- Pen records, Forms 14, 15, 16, 17.
- Incubation, Form 18.
- Notes on management, Form 19.

Records kept on these forms are suitable for bringing out the details of practice; and with them as guides, poultry keepers can make indicated changes with confidence in the results to be expected.

The troublesome question of the form of the accounts, score cards, or records, is best settled by the individual, as his interest in particular lines of work develops. Any of the following may be kept to advantage without direct reference to the others, but the greatest benefit, with the least work, results from considering any part of the business in its relation to the whole. The receipts may be separated as (1) sales of eggs, (2) sales of poultry, and (3) all other receipts, the total being the cash received. If the receipts from poultry are to be divided, the sum of receipts from sales of chicks, pullets, broilers, and old hens, each kept separate in the record, is brought into final summary as one figure. The feed expenses, which must usually be roughly estimated (for layers, brooder stock, and range stock), cannot amount to more than the total feed expense arrived at from the feed bills plus value of home-grown feed.

With the occasional counts every poultryman makes, and the quantity factors supplied by sales and purchase records, almost any of the performance records that are published from time to time can be directly compared with the poultryman's own results. These comparisons are distinct aids to improved management. When

detailed accounts are kept every care should be exercised to maintain the classification; otherwise confusion follows, and most of the benefit is lost.

RECEIPTS AND EXPENSES

Returns from the enterprise can be figured closely only when the multitude of sales, purchases, and payments made during the year are put on paper and added.

Form 2 provides the minimum of information needed for any other purpose than accumulating the totals. Starting with the inventory date, receipts and expenses are set down as they occur. Dates are too important to neglect; they are highly useful in comparing prices and are often indispensable when questions of fact are raised by the other parties to transactions. Quantities are needed in accounting for production, in determining rates, and in planning ahead.

All items must be put into the record separately; otherwise the information for which the accounts are kept cannot be obtained except by rough estimate. Lots of eggs sold at different prices may well be written down separately even though sold and paid for on the same day—if condition, size, or customer was a factor worth recalling in explanation of the price difference. Value, divided by quantity, shows the average price; that average price may be enough most of the time, but when grades are a factor each grade sold ought to be treated as a separate lot for record purposes with its quantity, price, and total value. The description of the items should be specific enough to enable one to make desired sortings of the items at a later time.

A page or more of a blank book may be devoted to each month's business. Another modification is to use the book spread open for each month, left page for receipts and right page for money paid out. This form is condensed and simple and is perhaps the easiest for most persons, as there are relatively few transactions to keep in good order.

FORM 2.—*Daily record of cash receipts and expenses*

Month and date	Item	Quantity	Price per unit ¹	Receipt ²	Expense ²
			<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
October 8.....	Eggs.....	240 dozen.....	0.53.....	³ 116.10.....	.....
October 8.....	Wheat.....	1,000 pounds.....	60.00 T.....	.....	30.00
October 8.....	Corn.....	2,000 pounds.....	50.00 T.....	.....	50.00
October 10.....	Incubator.....	1.....	480.00.....	.....	480.00
October 10.....	Lumber.....	500 feet.....	40.00 M.....	20.00.....	20.00
October 12.....	Brooder stove.....	1.....	20.00.....	20.00.....	.....
October 13.....	Eggs.....	180 dozen.....	120@0.50; 60@0.38.....	³ 75.05.....	.....
Total.....	.....	.....	.....	.....	.....

¹ Actual price quoted in the transaction.

² Net cash at the farm.

³ Selling costs have been deducted from the face value of the shipment.

Form 3 shows the next logical step, a summary of cash receipts from the different lines for the year. Preferably it should be made up every month, but because all the facts for making it are already in Form 2 or its equivalent it can be made up at any convenient

time. The advantage in working it out each month lies in the closer knowledge obtained of the trend of receipts and in the greater opportunity it offers to correct errors which are likely to creep in.

The figures for Form 3 may sometimes be accumulated more easily by taking out of Form 2 all the items that relate to the market egg sales and keeping them together on a separate page, or all the columns may represent details on separate pages.

The expense items really ought to be kept in classes as shown in Form 4, which is a monthly summary of the expenses set down in Form 2 or some modification of it. Seasonal differences in the items appear promptly in this record, and the record also provides basic information for planning ahead, once a farmer has a record for a year or more, for comparison. One is likely to err on the side of too few subdivisions of expense in the current record. Every inclination to combine unlike items in the record should be stifled; small items not needed in later figuring of performance or efficiency may properly be grouped together.

FORM 3.—*Summary of cash receipts, by months*

Month	Eggs		Fowls		Chickens		Miscellaneous	Total
	Quantity	Value	Quantity	Value	Quantity	Value		
October.....	<i>Dozens</i> 900	<i>Dollars</i> 450. 00	<i>Number</i> 100	<i>Dollars</i> 150. 00	<i>Number</i> 200	<i>Dollars</i> 150. 00	<i>Dollars</i>	<i>Dollars</i> 750. 00
November.....								
December.....								
January.....								
February.....								
March.....								
April.....								
May.....								
June.....								
July.....								
August.....								
September.....								
Total.....	1, 520	6, 080. 50	715	905. 00	1, 310	725. 00	225. 00	7, 935. 50

FORM 4.—*Summary of cash expenses, by months*

Month	Feed		Labor		Poultry		Miscellaneous	Total
	Quantity	Value	Quantity	Value	Quantity	Value		
October.....	<i>Pounds</i>	<i>Dollars</i> 255. 00	<i>Days</i> 4	<i>Dollars</i> 16. 00	<i>Number</i>	<i>Dollars</i>	<i>Dollars</i> 490. 00	<i>Dollars</i> 761. 00
November.....								
December.....								
January.....								
February.....								
March.....								
April.....								
May.....								
June.....								
July.....								
August.....								
September.....								
Total.....		4, 674. 36		210. 00		750. 00	710. 00	6, 344. 36

The difference between cash receipts and cash expenses is only one of a number of measures of returns, and is really satisfactory only when the enterprise is entirely independent of other farm or personal enterprises, when there are no material changes in the inventory, and it is without debts.

Debts and credit transactions that involve two bookkeeping years complicate the bookkeeping. These transactions are matters of

financing, necessity, or convenience of the operator as a person. In figuring the earnings from the poultry enterprise for a year, or any of the cost or return factors, precise figuring requires that "cash receipts" be adjusted in one way or another to the sum which would have been received if all sales had been settled within the bookkeeping year, and that "cash expenses" be adjusted to the sum which would have been paid out had all goods and services been paid for in cash on the spot. As money borrowed is not a receipt of the poultry enterprise, the repayment of that money is not an expense of the business. The safest way is to enter in the book all receipts and expenses as they occur; then mark the items that do not belong to the current year's business; and at the end of the year, for purpose of computation, add in the proper amounts for unsettled accounts. Though these adjustments for credit transactions may be about equal at both ends of the year, such separation often clears up questions that would otherwise be obscure. Even with debts and credit transactions allowed for, one or more of the following adjustments must be made, and as size of business is one basis of judging relative success, totals are used rather than balances in the illustrative sample.

The cashbook (Forms 2, 3, 4), shows, for example, a total of \$7,935.50 received and \$6,344.36 paid out, leaving a balance of \$1,591.14. This is sometimes thought of as "the profit for year," but such a balance may be much more or much less than the earnings of the enterprise during the year.

On the income side of the statement the enterprise furnishes eggs and birds to the family which have value; and eggs or birds sold but not paid for, or ready for sale but not yet sold, are earnings of the period just as much as if they had been converted into cash and entered on the book. In case they are not yet sold, one has valuable property instead of money in hand. Increase in the value of the equipment is usually offset by money paid out, so such an increase is not an income item like increase in number of birds or like sales not settled for.

After separation of cash items and addition of noncash inventory and other estimated items the following type of statement results:

Receipts

A. Cashbook items (Form 2 or 3) ¹ —		
a. Sales of eggs and poultry-----	\$7, 710. 50	
b. Miscellaneous receipts (sales of equipment, feed sacks, feed, manure, and the like)-----	225. 00	
		\$7, 935. 50
B. Inventory increases (Form 1)		
a. Stock (and supplies, if any)-----	800. 00	
b. Equipment (and real estate, if any)-----	450. 00	
(These items are often offset by expense.)		1, 250. 00
C. Value of eggs and poultry used by the family (Form 13)-----		
		87. 00
Total (gross receipts) ¹ -----		9, 272. 50

¹ First adjusted to a basis of cash transactions for the bookkeeping year.

Similar inspection of the expense situation promptly suggests that the cash expense total tells only part of the story. First there are the ordinary expenses for feed, hired labor, supplies, and services. Then there are the items paid for but not used up during the year,

like the incubator in Form 2, which is offset by the inventory increase in Form 1. Then there may be home-grown feed, which sometimes is a large item of real expense in producing eggs and poultry in a farm flock. Then there may be inventory decreases which should be counted as expense before figuring profit. Sometimes an inventory decrease represents just as real an expense as any for which cash was paid out during the year, and sometimes it represents merely a conversion of property (stock or old equipment), into cash, but in either case receipts must be reduced by the amount before "profit" is figured.

Expenses

A. Cashbook items (Form 2 or 4) ² —		
a. Feed, hired labor, supplies, services, for current use.....	\$5, 014. 36	
b. Stock, equipment, and improvements to real estate (usually appear in inventory increases unless offset by wear and tear on other items).....	1, 330. 00	\$6, 344. 36
B. Inventory decreases (Form 1)—		
a. Stock, feed, straw and eggs.....	59. 00	
b. Equipment and buildings (estimated depreciation).....	159. 00	
		218. 00
C. Home-grown feed, estimated value (Form 6).....		525. 50
Total (gross expenses) ²		7, 087. 86

² See footnote 1.

A review of the year's business, including the inventory changes indicated, the value of home-consumed products, and cash transactions, (cash-for-the-period-basis), shows a difference of \$2,184.64 between gross receipts and gross expenses. This sum represents, as nearly as is practicable to determine it, "the return to unpaid labor and to capital," sometimes called operator's "profit." It is \$593.50 larger than the balance of the cash items, and though this additional sum was not available for spending in the year of account it was in a form which would yield cash the next year perhaps by sale of birds, perhaps through increased earnings, or perhaps through reduced expenses. The earnings of a business for a specified period may be quite different from the cash sum which the operator of the business may reasonably spend for personal purposes during the year.

The sum "return to unpaid labor and to capital" can be split up as the bookkeeper wishes. In this case, assuming no labor unpaid except the operator's and assuming no debts, the \$2,184.64 would pay the operator \$100 per month for work done and a little more than 8 per cent interest on the capital value of his property at the beginning of the year. If he figured that he ought to get for his work 50 cents an hour for three hundred and sixty-five 10-hour days (\$1,825), the interest on his own capital is reduced to \$360 or about 3 per cent. If, moreover, he wants to show a return to management, or true profit, he must decide on a satisfactory rate of interest and an agreeable value for his own services as a physical worker, both of which are to be deducted from the \$2,184.64.

Such unlimited choice in the statement of results makes comparisons difficult, but it emphasizes the importance of knowledge of the whole situation for one's own business.

EGG-PRODUCTION RECORD¹

The daily egg record means much to the observant poultryman as it helps him to see and to measure the changes in production that can be accounted for by changes in feeding practices, weather conditions, or other factors.

Form 5 shows a wall or desk sheet of the daily production of eggs and a summary for the month. The bird count is needed to get the average production for the month, a common measure of performance. An extension of this record is a similar record for pullets separate from the older laying stock, or for special pens, all of which together with the main record make the total egg production for the day. All usable eggs should be counted whether salable or not, in order that eggs per hen, eggs per 100 pounds of feed, or other rates may be figured as closely as possible.

FORM 5.—*Egg-production record*

Day of month	194-			194-								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	600											
2.....	625											
3.....	618											
4.....	622											
5.....	630											
6.....	650											
7.....	695											
8.....	686											
9.....	650											
10.....	700											
11.....												
12.....												
13.....												
14.....												
15.....												
16.....												
17.....												
18.....												
19.....												
20.....												
21.....												
22.....												
23.....												
24.....												
25.....												
26.....												
27.....												
28.....												
29.....												
30.....												
31.....												
Total.....	18,439											
Number of hens ¹	1,487											
Eggs per bird.....	12.4											
Percent production.....	40											

¹ The exact figure is obtained by using the hen-day basis, in which the number of hens is multiplied by the actual number of days in which they are in the pen and this total is divided by the number of days in the month. A shorter method, and one that is often satisfactory, is to add the number on hand at the beginning of the month and the number at the beginning of the following month, and divide by two. A figure sometimes used, but not recommended, is the number on hand at the beginning of the month.

FEED

Figuring of feed consumption rates and costs, in comparison with egg production and egg prices, is abundantly worth while, as feed is the biggest single item of current cost of egg production and constitutes the larger part of the cost of raising pullets.

Accurate feed records are often difficult to obtain, especially on farms on which the feed used by poultry is not kept separate from the feeds for other farm livestock or on which both home-grown and purchased feeds are used in the ration. One way of bringing feed consumption and costs together on such farms is illustrated in Form 6. In the first column of the form should be listed all of the kinds of feed used by the poultry during the month for which the information is wanted. The home-grown and the purchased feeds should be listed separately. In the second column should be entered the usual quantity fed per day in the ration. The third column is for entering the number of days that the particular feed was used during the month. Current prices for the various feeds are entered in the fifth column. If it is desired to observe the feed cost of egg production for different pens, or for hens and pullets separately, or to observe the feed cost of raising pullets, separate ration reports should be made out for each class of poultry. Care should be taken to see that all the estimates added together approximate the total fed to poultry.

FORM 6.—*Poultry ration report for estimating feed consumption and cost for month of October*¹

Kind and source	Quantity fed per day	Days fed during month	Total quantity	Price per 100 pounds	Total value	
					Home-grown feeds	Purchased feeds
Grain:	<i>Pounds</i>	<i>Number</i>	<i>Pounds</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Wheat (purchased)	82.5	31	2,557.5	2.75	-----	70.33
Corn (purchased)	20.0	31	620.0	2.55	-----	15.81
Corn (home grown)	62.5	31	1,937.5	2.40	46.50	-----
Total	165.0	-----	5,115.0	-----	46.50	86.14
Mash:						
Corn meal (purchased)	52.5	21	1,102.5	2.55	-----	28.11
Bran (purchased)	52.5	21	1,102.5	2.25	-----	24.81
Beef scrap (purchased)	52.5	21	1,102.5	4.90	-----	54.02
Middlings (purchased)	52.5	21	1,102.5	2.40	-----	26.46
Commercial mash	210.0	10	2,100.0	3.50	-----	73.50
Total	420.0	-----	6,510.0	-----	-----	206.90
Other feeds:						
Milk (home grown)	30.0	31	930.0	4.00	37.20	-----
Cabbage (home grown)	50.0	31	1,550.0	1.00	15.50	-----
Shells, grit, etc	-----	-----	-----	-----	-----	5.00
Total	80.0	-----	2,480.0	-----	52.70	5.00
Total value all feeds	-----	-----	-----	-----	99.20	298.04

¹ Similar forms can be used to figure the feed consumption and costs for growing pullets or for individual pens.

The specialized poultryman who buys all his feed can often ascertain his feed consumption and costs with comparatively little trouble. He has only to count the sacks regularly and multiply by billed prices. Everything is weighed for him and priced for him so that he needs

only to be sure that he does not run the feed for baby chicks, pullets, or cockerels into the feed report for the layers—not if he wants to figure cost of eggs or test out a ration.

The value to be used in figuring cost of home-grown feeds is a matter of indifference so long as it is about that current in the locality. Too high a value reduces the profit shown by poultry, whereas too low a value unduly favors the poultry. Neither has any effect on the profit of the whole business. Jockeying values to make impressions is not only poor business but defeats the purpose for which business records are kept.

Form 7 is a summary of monthly feed quantities and values.

FORM 6.—*Summary of all feed used by months*¹

Month	Grain		Mash		Other Feeds	
	<i>Pounds</i>	<i>Dollars</i>	<i>Pounds</i>	<i>Dollars</i>	<i>Pounds</i>	<i>Dollars</i>
October.....	5, 115	137. 66	6, 510	211. 57	-----	57. 70
November.....	-----	-----	-----	-----	-----	-----
December.....	-----	-----	-----	-----	-----	-----
January.....	-----	-----	-----	-----	-----	-----
February.....	-----	-----	-----	-----	-----	-----
March.....	-----	-----	-----	-----	-----	-----
April.....	-----	-----	-----	-----	-----	-----
May.....	-----	-----	-----	-----	-----	-----
June.....	-----	-----	-----	-----	-----	-----
July.....	-----	-----	-----	-----	-----	-----
August.....	-----	-----	-----	-----	-----	-----
September.....	-----	-----	-----	-----	-----	-----
Total.....	-----	-----	-----	-----	-----	-----

¹ If the laying and rearing flocks are to be studied separately, two feed forms should be used.

LABOR RECORD

Labor is the second largest item of expense of poultry keepers. As such, its importance suggests close study from time to time to find out how effectively the work is done and if something can be done to improve it. Some farmers care for twice as many birds as others with the same amount of labor. Halving the labor cost or doubling the output of the available labor sets up an attractive margin for the operator to work toward.

The labor record may emphasize either of two closely related lines: A time study, which has for its chief object the determination of the best use of the labor available; or a cost study, which is more important in the case of enterprises that use hired labor than in the case of flocks in which all the work is done by unpaid family labor, or in the case of a farmer who wonders whether the poultry enterprise pays as well for the time spent on it as do the cows, hogs, or crops.

For the purposes of the annual summary (Form 3), the labor bill may be estimated at the end of the year. The value of family labor has to be estimated rather arbitrarily at a figure comparable with the wages and work accomplished by hired labor; or else the total return left for family labor may be figured as the sum left over after all other charges are deducted, from which the wage rate earned by unpaid labor is computed by dividing the sum so reached by the time worked by the owner and his family.

A summary labor record for the laying flock is given in Form 8. One day a month the time spent on regular daily work (chores) is observed closely. This includes all items—feeding, watering, cleaning pens, opening and closing pens, gathering eggs, and the like. The daily time, multiplied by the number of days, gives the time spent during the month. Time spent in marketing and preparing eggs for market may be similarly estimated. "Other" work includes the occasional jobs like repairing fences, unloading a truck of feed, or culling the flock. This occasional work may be estimated as a total for the month unless some kind of work of that description is done nearly every day. The form provides for the separation of the work done by hired labor. If from the totals for the year the time worked by hired labor is subtracted, the result gives the time worked by the owner and his family, which time may be valued at the same rate per day or at any other rate that may seem best.

FORM 8.—*Labor report—laying flock*

Month	Kind of work	All labor			Hired labor				
		Hours per day	Number of days	Total hours	Hours per day	Number of days	Total hours	Rate per hour	Total value
October.....	Daily chores.....	8½	31	248	8	2	16	Cents 50	\$8.00
	Mktg. & prep. for mkt. ¹	1½	31	46½					
	Other.....	½	31	15½					
November..	Daily chores.....	7	30	210					
	Mktg. & prep. for mkt.....	2	30	60					
	Other.....	1	30	30					
December..	Daily chores.....	7½	31	232½					
	Mktg. & prep. for mkt.....	1½	31	46½					
	Other.....	1	31	31					
January....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
February...	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
March.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
April.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
May.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
June.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
July.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
August.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
September..	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								
Total.....	Daily chores.....								
	Mktg. & prep. for mkt.....								
	Other.....								

¹ Marketing and preparation for market.

Similar records may be made for any other subdivision of the flock for which a time record is wanted. (Form 9.) In this connection

as before, the estimates for any part of the flock should be compared with the total labor on the whole flock so that the estimates may be kept within the bounds of reasonable fact. When the number of birds in a lot changes materially the numbers cared for in each period should be noted, so that labor per 100 birds (or other unit) may be figured. The ideal of a uniform figure per bird each month, in spite of changes in number, can seldom be reached, but failure of the figures to approach a uniform figure indicates time available for other more profitable effort.

FORM 9.—*Labor report—growing flock*

Month	All labor			Hired labor				
	Hours per day	Number of days	Total hours	Hours per day	Number of days	Total hours	Rate per hour	Total value
March.....	6	31	186	2	31	62	<i>Cents</i> 50	<i>Dollars</i> 31.00
April.....	5	30	150	1	30	30	50	15.00
May.....	4	31	124					
June.....								
July.....								
August.....								
September.....								
Total.....								

SALES RECORDS

Sales records are records in which the receipts are kept in greater detail than is usually considered necessary for preserving in the record of receipts. (Form 2 or 3.) When sales are numerous, because different outlets may pay different prices or may offer different terms, a thorough analysis of all egg sales should be helpful in deciding the best markets for the eggs. When a decision is reached, the detail may perhaps then be dropped. In practice, if duplicate sales slips are made out or received in settlements, these slips constitute the sales record. They may be sorted in order to put together all that are alike, and then all the different piles are summarized for the permanent record before the slips are destroyed. Several sortings may be made—by grade, by price, by method of sale, by firms to which sales are made, by customer, or by market. Forms 10, 11, and 12 show basic information about sales for eggs, for fowls, and for chickens. Other information that can be obtained by modification of the form or by supplementary computations will occur to the poultryman who begins to use the form.

Among the readily available summaries from the egg-sales record are quantities sold weekly or monthly (sometimes called seasonal distribution of production); average prices, and seasonal movement of prices; total received for eggs; check-up on payment for eggs shipped; difference in price of the grades (if eggs are graded at the farm); and cost of marketing, if the transportation and selling charges are noted in addition to the net price and net value. A column might be added to show the quoted price in one or two markets to which the eggs might have been sent, for comparison with the price actually returned by the firm to which the eggs were sent. Comparison of

the total eggs sold with the total produced (daily egg record added, Form 5), may occasionally be made to advantage as a check on home use and breakage. The poultryman is accustomed to turning over in his mind all of these points of management. The record assures definiteness of the ideas, whereas memory may not reliably provide the information, especially for comparisons with past seasons.

Sales of fowls should be kept separately from sales of chickens or broilers. Market seasons are distinct, conditions different. Running the receipts from these two classes of stock together, or bunching receipts from poultry and eggs together, means sacrificing much of the benefit that might be gained from keeping the record.

FORM 10.—Record of eggs sold ¹

Shipment				Settlement					
Date	Destination	Dozen	Grade or description	Date	Dozen	Grade or description	Price per dozen	Express, commission, etc.	Net cash
Oct. 8...	M & Co. N. Y. City.	240	Extras....	Oct. 15	240	Extras....	<i>Cents</i> 53	<i>Dollars</i> 11. 10	<i>Dollars</i> 116. 10
Oct. 13...	J & Co. Phil...	180	Ungraded.	Oct. 16	120	Extras....	50	5. 40	54. 60
				Oct. 16	60	Small....	38	2. 35	20. 45

¹ Use one line for each sale.

FORM 11.—Record of fowls sold ¹

Shipment				Settlement				
Date	Destination	Number	Total weight	Date	Total weight paid for	Price per pound	Express, commission, etc.	Net cash
Jan. 10.....	C & Co. N. Y. City....	100	<i>Pounds</i> 424	Jan. 17	410	<i>Cents</i> 24	<i>Dollars</i> 14. 50	<i>Dollars</i> 83. 90
Jan. 25.....	C & Co. N. Y. City....	54	220	Feb. 2	218	25	8. 15	46. 35

¹ Use one line for each sale.

FORM 12.—Record of chickens sold ¹

Shipment				Settlement				
Date	Destination	Number	Total weight	Date	Total weight paid for	Price per pound	Express, commission, etc.	Net cash
July 1.....	K & Co. N. Y. City....	300	<i>Pounds</i> 450	July 8	448	<i>Cents</i> 30	<i>Dollars</i> 18. 10	<i>Dollars</i> 116. 30
July 12.....	K & Co. N. Y. City....	275	420	July 15	402	28	16. 50	96. 06
July 20.....	K & Co. N. Y. City....	200	390	July 28	390	26	15. 10	86. 30

¹ Use one line for each sale.

RECORDS OF EGGS AND POULTRY FOR HOUSEHOLD USE

The value of eggs and poultry furnished to the farm family by the poultry enterprise is often an important factor in poultry returns, especially on farms where the flocks are small. One way of keeping a record of this information is shown in Form 13. In some cases the poultry products used can be estimated closely enough and entered in the form at the end of each month.

FORM 13.—Record of eggs and poultry for household use

Month	Eggs			Fowls			Chickens		
	Quantity	Price per dozen	Value	Quantity	Price per head	Value	Quantity	Price per head	Value
October.....	Dozen 15	Cents 30	Dollars 4.50	Number 4	Cents 75	Dollars 3.00	Number	Cents	Dollars
November.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
January.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
February.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
March.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
April.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
May.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
June.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
July.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
August.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
September.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total.....	200	-----	43.00	40	-----	32.00	30	-----	12.00

PEN RECORDS

Whenever the flock is sorted into pens by age, breed, condition, or heredity, a pen record is a distinct help in judging the performance of the pen with respect to eggs produced, weight gained, or feed consumed. If the main object is merely mechanical separation to prevent crowding the pen record is a help in checking numbers. Actual counts then need to be made only for checking purposes at convenient times.

Form 14.—Pen record, laying flock

PEN NO. 4: 1 BREED, WHITE LEGHORNS, PERIOD, OCTOBER, 1945-MARCH, 1946

Item	Oct.	Nov.	Dec.	Jan.	Feb.	March
Number on hand first of month.....	500	488	-----	-----	-----	-----
Number died, missing, or stolen during month....	(12)	(4)	-----	-----	-----	-----
Principal causes of losses.....	Roup	Unknown	-----	-----	-----	-----

DISPOSALS, ADDITIONS, AND COUNTS

Date	Sales, transfers, and used in home		Date	Additions and purchases		Counts, and dates for same ²
	Number	Disposition		Number	Source	
Jan. 10.....	20	Hens sold.....	Nov. 22	30	From Pen 4.....	Date Dec. 1
Jan. 20.....	2	Home use.....	-----	-----	-----	Number 512

¹ All the pen records added together give the flock record.² The counts are made for checking purposes at convenient times.

Starting with the number in the pen at inventory time (or when the pen is made up), the number added are set down in one set of columns, and the numbers transferred, sold, used at home, or lost by death are set down in another set of columns. (Forms 12, 14, 15.) Thus at any time the exact number of birds in the pen may be figured, and this number should check with the count of birds actually in the pen at that time. Of course, if fences are not tight or if chickens escape into adjoining pens, the pen record will not check with the

count, but the addition of all the pen records will still yield useful information about the numbers of birds in the flock and what disposition was made of them.

Form 15.—Pen record, brooder chicks

PEN NO. 1: DATE STARTED, MAR. 29, NUMBER STARTED 1400, BREED, W. LEGHORNS

MORTALITY AT VARIOUS AGES—AGE IN WEEKS

	1	2	3	4	5	6	7	8	9	10	Total
Number died during week.....	28	26	15								
Principal causes.....	Weak Chicks	Weak Chicks	Cold weather								

DISPOSALS, ADDITIONS, AND COUNTS

Date	Sales, transfers, and used in in home			Date	Additions and purchases			Counts, and dates for same
	Number	Pullet or cockerel	Disposition		Number	Pullet or cockerel	Source	
May 30..	300	Cockerels ..	Market...	May 15	20	Cockerels ..	J. Brown...	Date June 1 Number 1061
June 5 ..	600	Pullets.....	Range.....					Date July 1 Number 369

Form 16.—Pen record, pullets on range

RANGE NO. 1: DATE JUNE 5, NUMBER STARTED 600, BREED, W. LEGHORNS

Mortality at various ages—Age in months

	3	4	5	6	Total
Number died, missing, or stolen during month.....	11	1			
Principal causes.....	Hawks..	Skunks ..			

DISPOSALS, ADDITIONS, AND COUNTS

Date	Sales, transfers and used in the home		Date	Additions and purchases		Counts and dates for same
	Number	Disposition		Number	Source	
July 1.....	25	Sold as culls.....	June 15	20	J. Brown.....	Date July 5 Number 866
Aug. 24.....	100	Sold for layers.....	July 1	300	Broader No. 3...	Date _____ Number _____

The pen records, separately and added together, provide the information to be used in connection with Form 5 to get the percentage production; with Form 6 for figuring the feed consumed per bird or per dozen eggs; with Form 8 for figuring the labor used; with Forms 10, 11, 12 for checking the relative values of eggs, fowls, and chickens. Poultrymen who have kept flock records of this kind find that a card tacked in the pen is convenient. They also emphasize the value of setting down the mortality and the reasons for the deaths. The other disposal items can be obtained from other records for the flock as a whole, though it is often convenient to specify disposition on the pen record and it is always necessary when performance by the pen is to be figured out.

At the end of each month it may often be desirable to summarize the pen information for the purpose of observing monthly or seasonal

changes in numbers of layers, chicks, or pullets on hand. Such a summary is shown for the laying flock in Form 17. Summaries for the brooding and rearing flocks can be made in the same way.

FORM 17.—*Size of laying flock first of month and changes in size during month*¹

Month	On hand beginning of month	Purchases and additions	Sold		Home use	Died
			Market	Breeders		
October.....	<i>Number</i> 1, 500	<i>Number</i>	<i>Number</i> 50	<i>Number</i>	<i>Number</i> 5	<i>Number</i> 20
November.....	1, 425					
December.....						
January.....						
February.....						
March.....						
April.....						
May.....						
June.....						
July.....						
August.....						
September.....						
October ²	600					
Total.....	³ 16, 250		705	10	40	145

¹ This record should not include pullets added to the flock at the end of the year.

² This second October 1 inventory is needed for the purpose of taking care of the flock changes in September, in order to complete a year's record.

³ Dividing this total by 13 gives an approximate figure for the average size of the flock for the year.

INCUBATION AND HATCHING RECORDS

The principal items to be included in a properly kept record of incubation are given in Form 18. If the operator makes a business of selling day-old chicks it would be well to add another column to show the disposition of the chicks hatched—whether they were sold or kept on the farm.

FORM 18.—*Incubation record*

Date set	Eggs set	Breed	Source or class of eggs	First test		Second test	Chicks hatched	Percent- age hatched of all eggs set
				Infer- tile	Dead germs	Dead germs		
Mar. 7.....	<i>Number</i> 2, 000	W. Leg.....	Own flock.....	<i>Number</i> 200	<i>Number</i> 100	<i>Number</i> 40	<i>Number</i> 1, 400	<i>Per cent</i> 70
Mar. 14.....	2, 500	W. Leg.....	J. Jones.....	200	100	50	1, 775	71
Mar. 21.....	2, 000	R. I. Red.....	H. Brown.....	240	120	60	1, 300	65
Total.....								

DIARY OR NOTES ON MANAGEMENT

Many experienced poultrymen make a practice of setting down on paper significant notes on important events—weather, changes in practices, and the like—which are related to their management of the flock. Such a record may be in the form of a printed diary which can be purchased, but a blank book serves every need and is more flexible in space utilization. (Form 19.) The date of the observation is important. The nature of the items to record is a matter of possible later interest. Days may pass without occasion for writing in the diary; then many things of permanent interest may happen. Some men use the diary for describing the terms and condition of sale, forecasts of returns, comment on markets, and other phases of management previously suggested in connection with the several forms. Convenience of the poultryman controls, but general usefulness suggests, the record of all comment with the form to which it applies. The principle is that the records kept should together provide the poultryman with the facts he needs in figuring results of past efforts and in planning for the future.

FORM 19.—*Notes on management*

Date	Remarks
October 15.....	Started lights on pullets, mornings and nights, 13-hour day.
October 15.....	Started to feed cod-liver oil to layers, 1 quart per 100 pounds of mash.
October 16.....	Cold, rainy weather.
October 17.....	Pullets confined for winter.
October 19.....	Closed all rear openings in houses.
October 21.....	End of cold, rainy weather; birds came through in good shape, no colds.

MAKING USE OF THE RECORDS

Although the mere keeping of records, a few or many at a time, is of some small benefit, the full fruits of the work done are not to be gathered until the records are used to answer questions of policy and practice.

Poultry keepers who have difficulty in analyzing and making use of their records may be helped by considering the following method of procedure.

1. **Summarize the important factors of price and production.**—A partial set of the factors of price and production is offered for example in Form 20. All of these may be figured from the forms suggested. The form provides a permanent record of the accomplishments in each of three years. Other factors of special interest can be added at will. All need not be used. A summary table of this kind provides a good basis for beginning an analysis of price, production, and other factors which may have affected poultry earnings during a given period.

FORM 20.—Summary table of important factors in poultry-farm management

Item	Information brought forward from form numbers	1946-47	1947-48	1948-49
Egg production per hen and marketing practices:				
Eggs laid—				
Oct.-Dec.....number..	5, 14, 17			
Jan.-Mar.....do.....				
Apr.-June.....do.....				
July-Sept.....do.....				
Total for year.....do.....				
Percent of eggs graded as "Extras".....percent..	10			
Feed per bird:				
Grain, laying flock.....pounds..	6, 7, 14, 17			
Mash.....do.....	6, 7, 14, 17			
Grain, rearing.....do.....	6, 7, 15, 16			
Mash, rearing.....do.....	6, 7, 15, 16			
Labor:				
Labor per 100 fowls—				
In laying flock.....hours..	8 & 17			
Pullets raised.....do.....	9 & 16			
Costs: ¹				
Cost of grain per 100 pounds—				
Laying flock.....dollars	6 & 7			
Mash.....do.....	6 & 7			
Grain, rearing.....do.....	6 & 7			
Mash, rearing.....do.....	6 & 7			
Feed cost per dozen eggs produced.....cents..	5, 6, 7			
Returns:				
Price received for—				
Eggs, per dozen.....do.....	10			
Fowls per pound.....do.....	11			
Broilers per pound.....do.....	12			
Mortality:				
Laying flock.....percent..	14, 17			
Brooder flock.....do.....	15			
Pullets on range.....do.....	16			
Chicks hatched, percentage of all eggs set.....do.....	18			
Pullets raised per 100 chicks started.....number..	15, 16			

¹ See notes at bottom of Forms 5 and 6.

2. Study the price factors.—Prices received for eggs, fowls, and broilers, and prices paid for feed and other important poultry items have an important effect on poultry earnings. These prices have varied considerably during past years, often causing wide fluctuations in net returns from poultry farming. For a given period feed prices may be high or low in relation to egg prices, or prices of poultry meats may be high or low in relation to egg prices, or the spring and summer (storage season) price of eggs may be high or low in relation to the fall and winter price, and so on.

It is important to study the records and other sources of information to find out what the price relationships were for the period covered by the records. These relationships should then be compared with similar data for other years. Price information for these comparisons can be obtained from the records of previous years for the same farm and from price quotations published in trade papers, in the Agricultural Statistics of the United States Department of Agriculture, and in other reliable publications.

The county agent, the State college of agriculture, or the United States Department of Agriculture will furnish poultrymen with price data that will enable them to know price trends for poultry and other farm products. Information of this kind is used by successful farmers in planning increases or decreases in the different lines of production and in planning feeding and other practices that are likely to be most profitable under the conditions that are expected to pre-

vail. Farmers should compare their own prices and price trends with those for their locality or for the leading markets. This will enable them to know whether the prices they received were higher or lower than the market level, and may possibly suggest means for improving the price relationships for their farm production the following year. Some farmers can get better-than-average prices through meeting specifications for the highest class trade and by getting more eggs to sell during the fall months.

3. Study the production factors.—Among individual farmers there often is wide variation in the seasonal and annual production of chickens on farms, in the amount of labor used in poultry farming, and in the mortality of chicken flocks. Although extreme changes in weather conditions affect the average egg production, health, or mortality of most flocks in a section, it has been demonstrated that some poultrymen are able to obtain good production results from their flocks in spite of adverse conditions. This is an important factor in the success of many poultry keepers.

The production factors in the summary table should be studied to determine where opportunities exist for improving or raising the production standards. Perhaps it will be found that the egg production for the year was low or that not enough eggs were produced during the winter months. Perhaps culling was neglected, and too many poor layers were kept on high-priced feeds, or perhaps too few pullets were saved per 100 chicks started.

During the war there was great expansion in commercial broiler production to supply the market for chickens when other meats were hard for housewives to get. In some localities, unfavorable developments in feed supply or in market outlets caused heavy financial losses. When birds must be held too long, they "eat their heads off," and, if mortality is heavy, normal feed and labor costs are shared by so few birds as to put a producer "in the red." These developments stimulated interest in computations of cost, the bookkeeping phases of which are the same as for the rearing of chickens.

4. Select factors that offer best opportunities for improvement and plan to carry them out.—Careful study of the records will probably reveal some things that offer better opportunities for improvement than others. These exceptional opportunities should be given further study and thought, for the purpose of making plans to put them into practice. The value of records will depend largely on the improvements made in the weaknesses that are revealed by the records.

5. Records kept as herein described contain the facts a poultryman needs for income tax computations.—Almost everyone by now has had some experience with income tax forms. Income tax filing summarizes results obtained. The authors have been concerned mainly with records that help the poultryman to keep his business profitable.